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CENTRAL INTELLIGENCE AGENCY ~~SECRET~~ CONFIDENTIAL

INFORMATION REPORT

REPORT [redacted]

COUNTRY Germany (Russian Zone)

DATE DISTR 8 October 1948

SUBJECT Delivery and Manufacturing Program at Oberspreewerk; Development of Magnetron OSW 2585

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SUPPLEMENT REPORT NO. [redacted]

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[redacted]

1. The following is the delivery and manufacturing program for the experimental works of the Oberspreewerk for July 1948:

Amplifier and Transmitter Tubes:

Document No. 1
NO CHANGE in Class. ☐
☐ DECLASSIFIED
Class. CHANGED TO: TS S C
DDA Memo, 4 Apr 77
Auth: DDA REG. 77/1763
Date: 4/5/78 [redacted]

OSW 2540 (20 cm)	20 "Aufbauten"		
" 2585	8 "		
OSW 2021 (5 D 21)	20 "		
OSW 2584 (Diode 10 cm)			
OSW 2092	80 "	10 pieces	
" 2432 (LG11)	30 "	30 "	P 20mW
" 2013 (723 A/B			
RS 255	6 "	2 "	

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Image Tubes

OSW 2047	5 "		
" 2333	5 "		
" 2586 (7")		400 "	Order of 31 May
" 2390 (9")	120 "		49 pieces
" 2391 (12")	35 "		13 "
" 2066	8 "		
" 2068b	6 "		5 "
" 2068bn			4 "
" 2144	10	"+ 10 "Bedampfer" 2 pieces	5 "
" 2205			2

Discharge Tubes

OSW 2452		5 pieces	VM
		6 "	
" 2825		15 "	VM
" 2544	5 "Aufbauten"		
" 2455	10 "		
" 2460	10 "		
" 2564	5 "		

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Spectral Tubes

OSW 2523		70 pieces	
" 2524		15 "	
" 2498	Experimental work		
" 2499		55 "	
JE 50		7 "	

Spectral Tubes

OSW 2530	8 pieces	VM
" 2531	1 "	
	15 "	VH
" 2532	1 "	
	15 "	VH
" 2533	1 "	
	10 "	
" 2534	5 "	
	20 "	
	1 "	

Stabilizers and Rectifiers

OSW 2447 (125 V)	75 "Aufbauten"	50 "	VH
" 2450 (150 V)	50 "		
" 2549	25 "		

2. Delivery program for the factory for July 1948.

Amplifier Tubes

OSW 2190	8000 pieces
" 2192	1000 "
" 2600 (made like OSW 2190)	number depending on outcome
" 2601 (" " " 2192)	" " " "

Metal Ceramic Tubes

OSW 2008	200 pieces
" 2006	140 "
" 2568 (LD 6)	30 "

Transmitter Tubes

TS 41	50 "

Bolometers and Measuring Tubes

OSW 2090	20 "
" 2094	30 "
" 2183	80 "

Stabilizers

STV 150/20	100 "
" 280/40	300 "
" 280/40 Hz	20 "

Rectifier Tubes

S 0, 35/0,6 d	5 "	
S 1/0,2II a	30 "	
S 5/1	16 "	
N 190/10	12 "	
N 190/20	12 "	25 St.

Valves

V 150/502 p	100 "	
V 150/1202 p	25 "	
V 230/802 p	25 "	

Other

"Pulverröhrchensicherungen" 1000 pieces

3. State of development of magnetron OSW 2585 on 3 July 1948.

a) At the end of June the first two models were received. A change had been made in the original plans. According to the second specification 10 - 4, the cone of the anode segments was to have at the top a diameter of 2 mm. and the cone was to have an incline of 7° 30'. In the experimental models the diameter at the top was 1.8 mm. and the incline 2°. The total height of the cone was reduced from 6 to 5 mm. The purpose of this change was to decrease the capacity of the opposite anode segment in order to create more favorable conditions for the excitation of the shorter waves.

b) In both tubes a long disturbing wave (Storwelle) was noticeable at a wave length of approximately 4 - 5 cm. At one of the tubes there was another such wave at 2.4 cm. wave length which, however, was very weak. This was the harmonic wave of a fundamental oscillation at 4.8 cm. wave length. It was not possible to receive a shorter wave with these two experimental models. This was apparently for two reasons. 1) To obtain a short wave the anode voltage must be about 1800 volts. The anode voltage could, however, be raised only to about 800 volts, since at a higher anode voltage the intensity of the long disturbing waves was so great and the positive ion bombardment of the filament became so strong that the heating filaments risked being destroyed. 2) On opening the tubes it was observed that the inside of the ceramic part had been covered so extensively with copper vapors that no energy could radiate into the connected circuit system. New models are now being produced, in which the anode section has two built-in screen parts to prevent formation of the long disturbing wave. Especial attention is given to the technological preliminary treatment and the pump process, in order to prevent a new gassing of the ceramic parts.